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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,861

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Takamitsu Saito

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GLOBAL IP COUNSELORS, LLP
1233 20TH STREET, NW, SUITE 700
WASHINGTON, DC 20036-2680

EXAMINER

TALBOT, BRIAN K

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

12/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,861	Applicant(s) SAITO ET AL.	
	Examiner Brian K. Talbot	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-21 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-21 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1792

1. The amendment filed 9/9/09 has been considered and entered. Claims 6 and 22 have been canceled. Claims 24 and 25 have been added. Claims 1-5,7-21 and 23-35 remain in the application.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. In light of the amendment filed 9/9/09, the 35 USC 112 and 102 rejections have been withdrawn. However, the following 35 USC 103 rejection has been necessitated by the amendment.

Claim Rejections - 35 USC § 103

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

Art Unit: 1792

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-5,7,17-21 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drengler et al. (3,087,003) in combination with Symons et al. (3,954,502).

Drengler et al. (3,087,003) teaches a primary battery whereby anode or cathode powders are placed in a mold, a shim support, i.e. collector, is placed on top and a mold pressed to form the coating on the shim support. Next another shim support is welded to the first shim support and a second anode or cathode powder is applied thereto and mold pressed to form the cathode/anode on either side of the shim support. The pressure of molding is higher in the first pressing step than in the second (col. 2, lines 24-47).

Drengler et al. (3,087,003) fails to teach the claimed porosity of the active material to be 30-40%.

Symons et al. (3,954,502) teaches a bipolar electrode for fuel cells. Symons et al. (3,954,502) teaches a porous electrode form 20-80% and more specifically from 40-70% porosity (col. 5, lines 15-21).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Drengler et al. (3,087,003) porous electrode to have the claimed porosity as evidenced by Symons et al. (3,954,502) with the expectation of achieving similar success.

Art Unit: 1792

Furthermore, it is the Examiner's position that these are "result effective" variables which are deemed as obvious modification of the prior art absent a showing of unexpected results. It is noted that the first compression step is greater than the second compression step and this is taught by Drengler et al. (3,087,003) and that the claimed porosity is encompassed in the range taught by Symons et al. (3,954,502).

7. Claims 9-12,18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drengler et al. (3,087,003) in combination with Symons et al. (3,954,502) in combination with Zhang (2003/0175588).

Drengler et al. (3,087,003) in combination with Symons et al. (3,954,502) fails to teach or fairly suggest adding a binder and a conductive enhancement and the particular cathode material.

Zhang (2003/0175588) teaches a cathode paste material including a cathode material, a binder of PVF and carbon black or acetylene black as a conductive enhancer. The cathode material can be lithium cobalt dioxide as well as others (abstract and [0022] – [0024]).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Drengler et al. (3,087,003) in combination with Symons et al. (3,954,502) cathode/anode paste to include a binder, conductive material and the particular cathode material as evidenced by Zhang (2003/0175588) with the expectation of achieving a successful paste for producing electrodes.

Art Unit: 1792

8. Claims 8 and 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drengler et al. (3,087,003) in combination with Symons et al. (3,954,502) in combination with Varma (4,687,598).

Drengler et al. (3,087,003) in combination with Symons et al. (3,954,502) fails to teach or fairly suggest adding a solid electrolyte and electrolyte supporting salt.

Varma (4,687,598) teaches an electrode active material for batteries which includes active material, binder and a electrically conductive polymer (abstract). The electrically conductive polymer includes polyethylene oxide and the anode active material is a lithium such as LiCFSO (col. 2, lines 4-40).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Drengler et al. (3,087,003) in combination with Symons et al. (3,954,502) cathode/anode paste to include a solid electrolyte and electrolyte supporting salt as evidenced by Varma (4,687,598) with the expectation of achieving a successful paste for producing electrodes.

Response to Amendment

9. Applicant's arguments with respect to claims 1-5,7-21 and 23-25 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argued that the prior art fails to teach the claimed electrode porosity.

Symons et al. (3,954,502) teaches this limitation as detailed above.

Art Unit: 1792

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1792

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Brian K Talbot/
Primary Examiner, Art Unit 1792

BKT